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# Testimony of Elaine Davies Deputy Director, Office of Emergency and Remedial Response Before the House Subcommittee on Water Resources and the Environment Committee on Transportation and Infrastructure March 24, 1999

Good morning. I'm pleased to be here representing EPA's Oil Spill Program, to discuss our implementation of the Oil Pollution Act of 1990. EPA has an important role to play in oil spill prevention, preparedness and response for the inland waterways of the United States, just as the U.S. Coast Guard (USCG) does in the coastal zone. Our nation's waters are a unique and very important resource, providing drinking water, recreational, and commercial uses to millions of citizens. Also, countless species of animals and plants must have clean fresh water to survive and flourish. In protecting our environment against oil pollution, EPA can wear up to four different hats: we are responders to spills in the inland zone, we run a prevention program for oil storage facilities, we ensure federal preparedness for spills as chair of the National Response Team, and we provide expert environmental advice to other responders and other agencies charged with protecting the environment.

Preventing, preparing for, and responding to oil spills is a big job. As a major industrial nation, the United States produces, distributes, and consumes large quantities of oil. Petroleum-based oil is used as a major source to fuel our factories and various modes of transportation, and in many everyday products, such as plastics, nylon, paints, tires, cosmetics, and detergents. On average, the U.S. uses over 250 billion gallons of oil and petroleum products each year. To meet this demand, each year the U.S. produces an average of 125 billion gallons of crude oil and imports an average of 114 billion gallons of crude oil and other petroleum products. At every point in the oil production, distribution, and consumption process, oil is invariably stored in storage tanks. With billions of gallons of oil being stored throughout the country, the potential for an oil spill is significant, and the effects of spilled oil can pose serious threats to human health and the environment.

In addition to petroleum-based oil, the U.S. consumes millions of gallons of non-petroleum oils, such as silicone and mineral-based oils, and animal and vegetable oils. Like petroleum products, these non-petroleum oils are often stored in storage tanks that have the potential to spill, causing environmental damage that is just as serious as the damage caused by petroleum-based oils.

To address the potential environmental threat posed by petroleum and non-petroleum oils, EPA has established a comprehensive and integrated Oil Spill Program with a three-pronged mission: to prevent, prepare for, and respond to oil spills. The Oil Spill Program is administered through EPA headquarters and the 10 EPA Regions. The Oil Spill Program has helped reduce the number of spills to less than 1% of the total volume handled each year. EPA's Oil Spill Program has a long history of responding to oil spills, including many major oil spills, and the lessons learned have helped to improve our country's prevention and response capabilities. EPA also supports the Coast Guard-led responses to coastal and offshore spills. And EPA provides specialized support through our Environmental Response Team, a group of dedicated scientists and engineers available 24 hours a day, to provide technical expertise to oil spill responders in the US

and around the world.

# History

EPA's Oil Spill Program as we know it now has been around since the early 1970's, when the Clean Water Act was amended. Our roots, however, trace back almost a century to the Rivers and Harbors Act of 1899, which generally prohibited the discharge of oil and other refuse matter from vessels or shoreline facilities.

Prior to 1968, a voluntary "interagency agreement" for response to water emergencies existed among several federal offices and agencies. There was no fund for oil spill response and no formal obligations for agency responsibilities. In 1968, the National Contingency Plan (NCP) was developed to establish a framework for response to such incidents, and that framework continues today. The primary purpose of the NCP is to provide for efficient, coordinated, and effective action to minimize adverse impact from oil discharges and hazardous substance releases.

The Clean Water Act of 1972 (CWA), 33 U.S.C. 1251 et seq, is the principal federal statute protecting navigable waters and adjoining shorelines from pollution. Since its enactment, the CWA has formed the foundation for regulations detailing specific requirements for pollution prevention and response measures. Section 311 of the CWA addresses pollution from oil and hazardous substance releases, providing EPA and the U.S. Coast Guard with the authority to establish a program for preventing, preparing for, and responding to oil spills that occur in navigable waters of the United States.

In 1973, EPA issued the Oil Pollution Prevention Regulation, which is codified at 40 CFR Part 112, to address the oil spill prevention provisions contained in the Clean Water Act of 1972. The regulation forms the basis of EPA's Oil Spill Prevention, Control, and Countermeasures, or SPCC, program, which seeks to prevent oil spills from certain aboveground and underground storage tanks. In particular, the SPCC regulation applies to non-transportation-related facilities that: (1) have an aboveground storage capacity of more than 660 gallons in a single tank, multiple tanks with storage capacity of more than 1,320 gallons, or a total underground storage capacity exceeding 42,000 gallons; and (2) could reasonably be expected to discharge oil in harmful quantities into navigable waters of the United States. EPA regulates approximately 450,000 facilities under this prevention program. These facilities house up to 2 million aboveground oil storage tanks and related equipment and operations.

This prevention regulation requires each owner or operator of a regulated facility to prepare an SPCC Plan. The SPCC plan is required to address the facility's design, operation, and maintenance procedures established to prevent spills from occurring, as well as countermeasures to control, contain, clean up, and mitigate the effects of an oil spill that could affect navigable waters. EPA works with facilities by conducting about 1,000 inspections each year and implementing other outreach efforts to help educate the regulated and achieve greater compliance with the spill prevention provisions in the SPCC regulation. Over the history of the program, a great deal of environmental damage and cost has been averted due to the success of EPA's oil spill prevention program. There are numerous examples of instances in which spills were

prevented from reaching sensitive waterways because the facility's tanks were diked, and contained the entire volume of oil that was inadvertently released. For example, in September 1997, a bulk oil storage facility in San Jose, California, was vandalized which resulted in a release of about 300,000 gallons of diesel fuel from a 440,000 gallon capacity aboveground tank; however, none of this oil reached U.S. waters. Due to the implementation of an SPCC plan at this EPA-regulated facility, the entire volume of released oil was captured by the required facility containment system and was cleaned up without impacting water.

### The Oil Pollution Act of 1990's Mandates

The Oil Pollution Act (OPA) was signed into law in August 1990. OPA amended the existing provisions of the Clean Water Act, and created major new authorities addressing oil and, to a lesser extent, hazardous substance spill response. OPA also created the one billion dollar national Oil Spill Liability Trust Fund, which includes \$50 million dollar each year for emergency response to oil spills, and more if needed and appropriated by Congress. The fund is also used for many other purposes in support of OPA-related activities.

Executive Order 12777 (later amended by a Memorandum of Understanding in 1994) established the jurisdictional responsibilities for implementing the Oil Pollution Act. EPA regulates onshore and inland offshore non-transportation-related oil storage facilities, and responds to oil spills in the inland zone. The U.S. Coast Guard regulates vessels and marine transportation-related facilities, and responds to spills in the coastal zone. The Department of Transportation regulates onshore transportation-related facilities such as pipelines, rail, and highway transportation of oil. The Department of Interior regulates coastal offshore facilities.

For EPA, OPA primarily had implications in the preparedness arena, chiefly in two areas: facility preparedness and national response infrastructure. OPA enhanced facility preparedness by requiring response plans and increasing liability limits and penalties for spills. OPA also strengthened the national oil spill response infrastructure by requiring federal agencies to conduct oil spill drills and exercises, and to work with state, local, and tribal responders to develop geographic Area Contingency Plans, or ACPs. These ACPs seek to identify sensitive environments, potential spill sources, and response tools. OPA also enhanced the response infrastructure by increasing the federal government's ability to direct spill response when appropriate.

## **EPA's Progress in Implementing OPA's Mandates**

### Facility Preparedness Enhancements

OPA directed certain oil storage facility owners or operators to prepare and submit to the federal government, plans for responding to a worst-case discharge of oil. Facilities not in compliance with that statutory mandate were specifically prohibited from further operations after certain dates. The U.S. Coast Guard has implemented these requirements for vessels and for marine transportation-related facilities. On July 1, 1994, EPA finalized a regulation to incorporate these OPA requirements for onshore non-transportation-related facilities and define which facility owners or operators were directed to prepare and submit facility response plans. In accordance with statutory language, facilities that could reasonably cause "substantial harm to the

environment" (substantial harm facilities) must develop these plans, which must address "worst case discharges" and other discharges, analyze the potential impacts of those discharges, and ensure that the facility has the resources (financial, personnel, and equipment) available to respond to those discharges. The regulation establishes the risk-based criteria to determine which facilities are "substantial harm facilities". Over 5000 such facilities have submitted plans to EPA to date, which represents the 1-2% highest risk EPA-regulated facilities.

About half of the "substantial harm facilities" have been determined by EPA to pose the highest threat of "significant and substantial harm" to the environment. These highest risk "significant and substantial harm facilities" cannot operate without EPA approval of their response plans. EPA met the statutory deadline and approved all "significant and substantial harm" facility response plans by August 1995 to avoid having any facilities cease operations. EPA is currently conducting follow-up regulatory reviews and inspections of these facilities. EPA met an additional facility-related OPA mandate when it completed a study on the use of liners at aboveground storage facilities May 1996.

## Response Infrastructure Enhancements

OPA's enhancements to the national response infrastructure were implemented by EPA primarily through revisions to the National Contingency Plan. The NCP is the federal government's blueprint for responding to both oil spills and hazardous substance releases. OPA provided for better coordination of spill contingency planning among federal, state, and local authorities. EPA revised the NCP in September, 1994 (59 FR 47384) through close coordination with the U.S. Coast Guard and other federal agencies. The revised NCP provides a framework for notification, communication, logistics, and responsibility for response to discharges of oil, including worst case discharges and discharges that pose a substantial threat to the public health or welfare of the US. The revised NCP also further strengthened the federal On Scene Coordinator's ability to coordinate spill response in the event of a substantial threat to public health or welfare.

Under today's NCP, there is a National Response Team (NRT) composed of up to 16 federal agencies, with EPA serving as chair and the Coast Guard serving as vice-chair. The NRT does not respond directly to spills, but assists by providing information, technical advice, and access to resources and equipment during an incident. The Oil Spill Program actively supports the NRT activities and helps ensure that these efforts provide optimum support to our Regional field operations. In the event that response is needed by more than one Region, the NRT helps coordinate response efforts.

In addition to the NRT, there are 13 Regional Response Teams, one for each EPA Region, one for Alaska, one for the Caribbean, and one for the Pacific Basin. The RRTs, co-chaired by EPA and USCG, do not respond on-scene, but provide assistance as requested by the federal On-Scene Coordinator (OSC). They are primarily planning, policy, and coordinating bodies that assist state and local governments in preparing, planning, and training for emergency response. OSCs are individuals designated in each Region who are responsible for coordinating all response efforts during an incident, including response by federal, state, and local agencies, and responsible parties. They also provide local support and information in their response communities. OSCs are notified of spills by the National Response Center, which receives notification of all chemical, radiological, oil and biological releases.

EPA provides the federal OSCs in the inland zone, and the USCG serves that role in the coastal zone. In this role, EPA evaluates thousands of oil spill notifications in the inland zone each year, and for many of these provides technical or coordination support to state and local responders. Depending upon the size and complexity of the spill and the resources of the responsible party and other response agencies, EPA actively leads, directs, or monitors the response to 200-300 of these oil spills each year. In addition, EPA often participates actively in coastal zone spills, by providing technical support to the USCG OSC, and through the important role of co-chair of the RRT.

Area Contingency Plans are a critical element of strengthening the national oil spill response infrastructure. In each EPA Region, there exists one or more inland Area Committees -- composed of the federal, state, and local agencies who already work together under the National Response System and the National Contingency Plan during responses. These Area Committees work with industry and responders to identify potential discharge scenarios, potentially affected resources (including environmentally sensitive areas), and possible response resources such as equipment and trained personnel. This up-front planning work allows the agencies to become familiar with the roles and responsibilities to expect during responses, and ensures that high risk scenarios are considered and even practiced before actual spills. The thirteen Regional Response Team zones have been designated as the inland Areas for contingency planning purposes. The USCG has set up separate coastal areas for contingency planning. EPA, USCG, and other federal, state, and local agencies work together closely on inland and coastal Area Committees.

Each inland Area Committee published an Area Contingency Plan for its area by 1993. Since then, each Area Committee has worked to improve its plan through additional data collection, interaction with other agencies, and exercising the plan, and most Area Committees have published updates. In addition to the improved coordination and familiarity this Area Committee work brings to the various agencies responsible for oil spill prevention and response, the Area Contingency Plans also identify and contain critical data related to oil spill response, such as locations of envrionmentally sensitive areas, spill sources, response resources, etc. This locational data is typically available in maps and similar automated geographic information systems to enhance planning and better prepare for emergency responses. Continuing the improvement of these Area Contingency Plans will be an ongoing activity, as additional data becomes available (such as sensitive environments and other risk factors), and as the Area Committee incorporates lessons learned from responses, exercises, and continued coordination among the various agencies.

Another enhancement to the response infrastructure mandated by OPA was federal oil spill response exercise requirements. Drills and exercises, simulating spill scenarios, provide a testing ground for the National Response System and for regulated facilities. In August of 1994, EPA, the Coast Guard, the Research and Special Programs Administration in the U.S. Department of Transportation, and the Minerals Management Service developed the National Preparedness for Response Exercise Program (PREP) to provide guidelines for compliance with the OPA response exercise requirements. These guidelines are voluntary in nature. While regulated facilities are not required to follow the PREP guidelines, they are still bound by the regulatory exercise requirements of the OPA and may develop their own exercise program in order to comply.

The guiding principles for PREP establish both internal exercises, which are conducted within the regulated facility's organization, and external exercises, which extend beyond the facility to involve other members of the response community. External exercises are separated into two categories: industry-led area exercises and government-initiated unannounced exercises. These exercises are designed to evaluate the entire response mechanism in a given area to ensure adequate response preparedness. The goal of PREP is to conduct approximately 20 inland and coastal area exercises per year, with the intent of exercising most areas of the country over a three-year period. EPA is on track to achieve this goal.

# **Summary and Conclusions**

As you can see, EPA has made tremendous progress in implementing the important statutory requirements of OPA, and we are confident that the public health and environment are benefitting from these improvements. In recent years, we have worked especially hard in educating the regulated community and the public about the importance of oil spill prevention and effective response, through periodic publications and outreach materials, workshops, and similar public forums. However, even though we have met many of our statutory mandates, oil pollution continues to threaten our environment, including our nation's vital fresh waters. Each year, up to 20,000 oil spills are reported to the federal government, with half or more in EPA's jurisdiction in the inland zone. These spills typically pollute our waters with up to or more than the volume of the Exxon Valdez each year. In addition, other challenges lie ahead for the Oil Spill Program. Perhaps most notable are the changes in the oil industry, where we are concerned about the possible environmental implications of the low price of oil, aging infrastructure, and large corporate mergers.

Despite these threats, EPA is actively involved in seeking solutions to the challenges we face. We recently conducted a national Oil Spill Program review to identify the most effective portions of our program and to identify and share the most promising innovative activities underway in our ten Regions. We look forward to continuing our efforts to protect human health and the environment by minimizing the impact of oil spills on our inland fresh waters through effective prevention and response activities. Thank you for providing this opportunity to discuss EPA's Oil Spill Program and our vital role in environmental protection.